

Notice of Allowability

Application No.

10/064,265

Examiner

Cheukfan Lee

Applicant(s)

LEE ET AL.

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an application for patent filed June 27, 2002.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Cheukfan Lee

1. All pending claims 1-10 are allowed. Claim 1 is independent.
2. The following is an examiner's statement of reasons for allowance:

Claim 1 requires an optical sensor circuit module, of a document scanner, connected to a main circuit module, of the document scanner, through a connection cable for receiving scan control signals that control document scanning, extraction of an analog image signal from the document and conversion of the analog image data into digital image data to be received in the main circuit module, the scan signals being signals converted from a scanning instruction from a communication interface. The optical sensor circuit module in combination with the main circuit module in a document scanner is not taught by the prior art of record.

Claims 2-10 depend on claim 1.

Japanese Publication No. 2003-110798 A, cited below, discloses the similar subject matter as claimed. Note the CCD substrate (1) having timing generating circuit (14), A/D converter (12) and CCD sensor (11), and control board (2) that is connected to the CCD board (1) through a communication cable. However, the Japanese reference is not prior art to the application because of its late publication date April 11, 2003.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Japanese Publication No. 2003-110798 A discloses an image scanner device comprising a CCD substrate (1) having timing generating circuit (14), A/D converter (12) and CCD sensor (11), the CCD substrate (1) connected to a control board (2) of the scanner device through a communication cable.

Nishio (U.S. Patent No. 6,801,254) discloses an image pickup device having a CCD circuit board connected to a main circuit board, which has an analog-to-digital convert (ADC 26) mounted thereon.

Mai (U.S. Patent No. 6,002,508) discloses an optical scanner with a scanning and transmission control circuit removed out of the scanning casing and formed in an interface card connectable to an interface connected located on a computer motherboard.

Tsai et al. (U.S. Patent No. 6,084,691) discloses a multi-purpose scanner integrated into a computer, the scanner having a circuit (210) for processing image signals from a CCD sensor (208) to be transferred to the computer.

Sakai (U.S. Patent No. 5,627,603) discloses image processing apparatus utilizing a conventional signal processor to process high-definition electronic camera signals (Fig. 2).

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Japanese Publication No. 2002-218185 discloses an image reader and an image processing unit, the image reader comprises a photoelectric conversion element (12), a timing generating circuit, an analog/digital circuit, a transfer circuit, and an input output circuit, all of which are mounted on a single board (15).

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee whose telephone number is (571) 272-7407. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cheukfan Lee
January 3, 2006


Cheukfan Lee